

Listing of Claims:

1-20. (Canceled).

21. (Previously Presented) An apparatus comprising:

a piezoelectric substrate comprising:

a signal line comprising a first electrical port and a second electrical port;

a first partial filter;

a second partial filter electrically connected in series with the first partial filter, the first partial filter and the second partial filter being between the first and the second electrical ports;

wherein:

the first partial filter comprises a first serial transducer and a second serial transducer in series branches of the signal line, the first serial transducer and the second serial transducer being in an acoustic path and acoustically coupled with one another, and the first serial transducer and the second serial transducer being electrically connected in series in the signal line, and

the second partial filter comprises a first coupler transducer and an end-positioned transducer that are in a double mode surface acoustic wave (DMS) path, the end-positioned transducer being positioned at an end of the signal line.

22. (Previously Presented) The apparatus of claim 21, wherein the first electrical port comprises an asymmetrical electrical port having a signal-conducting terminal.
23. (Previously Presented) The apparatus of claim 21, wherein the second electrical port comprises an asymmetrical electrical port having a signal-conducting terminal.
24. (Previously Presented) The apparatus of claim 21, wherein the second electrical port comprises a symmetrical electrical port having multiple signal-conducting terminals.
25. (Previously Presented) The apparatus of claim 24, further comprising:
a reflector between the first and second serial transducers and electrically connected to one of the signal-conducting terminals of the symmetrical electrical port.
26. (Previously Presented) The apparatus of claim 21, wherein each of the acoustic path and the DMS path are bounded on both sides by reflectors.
27. (Previously Presented) The apparatus of claim 21, wherein the first partial filter further comprises one or more additional serial transducers in the acoustic path and in a series branch of the signal line, the one or more additional serial transducers being electrically connected in series with the first coupler transducer of the DMS path.

28. (Previously Presented) The apparatus of claim 21, wherein the second partial filter further comprises one or more of the following: a second coupler transducer and a second end-positioned transducer.

29. (Previously Presented) The apparatus of claim 28, wherein the first and second coupler transducers and the end-positioned transducers in the DMS path are arranged substantially alternately.

30. (Previously Presented) The apparatus of claim 21, further comprising:
a reflector between the first and second serial transducers.

31. (Previously Presented) The apparatus of claim 21, wherein:
the first electrical port is electrically connected to the first partial filter;
the second electrical port is electrically connected to the end-positioned transducer; and
the first coupler transducer is electrically connected in series with at least one of the first and second serial transducers.

32. (Previously Presented) The apparatus of claim 21, wherein:
the first partial filter comprises an additional acoustic path that is electrically connected with the first electrical port, the additional acoustic path comprising a parallel transducer that is electrically connected between the signal line and ground.

33. (Canceled)

34. (Previously Presented) The apparatus of claim 21, wherein:

the end-positioned transducer comprises at least two partial transducers that are electrically connected with one another and electrically connected in series between signal-conducting terminals of the second electrical port.

35. (Previously Presented) The apparatus of claim 21, wherein a signal-conducting terminal of the first electrical port is electrically connected to at least one of the first and second serial transducers.

36. (Previously Presented) The apparatus of claim 21, wherein the first partial filter has an additional acoustic path that has at least one serial transducer, the additional acoustic path being electrically connected with the first electrical port and being along the signal line.

37. (Previously Presented) The apparatus of claim 21, wherein the second partial filter further comprises a second coupler transducer.

38. (Previously Presented) The apparatus of claim 37, wherein the end-positioned transducer is between the first coupler transducer and the second coupler transducer.

39. (Previously Presented) An apparatus comprising:

a piezoelectric substrate comprising:

a signal line comprising a first electrical port and a second electrical port;

a first partial filter;

a second partial filter electrically connected in series with the first partial filter, the first partial filter and the second partial filter being between the first and the second electrical ports;

wherein:

the first partial filter comprises a first serial transducer and a second serial transducer located in series branches of the signal line, the first serial transducer and the second serial transducer being located in an acoustic path and acoustically coupled with one another, and

the second partial filter comprises a first coupler transducer, a second coupler transducer, and an end-positioned transducer that are located in a double mode surface acoustic wave (DMS) path, the end-positioned transducer being positioned at an end of the signal line;

a first signal-conducting terminal of the second electrical port is electrically connected to the first serial transducer;

a second signal-conducting terminal of the second electrical port is electrically connected to the second serial transducer;

the end-positioned transducer is arranged along the signal line that is electrically connected to the first electrical port;

the first coupler transducer is electrically connected in series with the first serial transducer; and

the second coupler transducer is electrically connected in series with the second serial transducer.

40. (Previously Presented) An apparatus comprising:

a piezoelectric substrate comprising:

a signal line comprising a first electrical port and a second electrical port;

a first partial filter;

a second partial filter electrically connected in series with the first partial filter, the first partial filter and the second partial filter being between the first and the second electrical ports;

wherein:

the first partial filter comprises a first serial transducer and a second serial transducer in series branches of the signal line, the first serial transducer and the second serial transducer being in an acoustic path and acoustically coupled with one another, and

the second partial filter comprises a first coupler transducer, a second coupler transducer, and an end-positioned transducer that are in a double mode surface acoustic wave (DMS) path, the end-positioned transducer being positioned at an end of the signal line; and

the second partial filter further comprises at least two end-positioned transducers between the first coupler transducer and the second coupler transducer, the first coupler transducer and the second coupler transducer being electrically connected in series and arranged next to each other.

41. (Previously Presented) The apparatus of claim 21, further comprising:

a serial resonator electrically connected between the first electrical port and the end-positioned transducer, the serial resonator having a constituent transducer and reflectors that bound the constituent transducer on both sides.

42. (Previously Presented) An apparatus comprising:

a piezoelectric substrate comprising:

a signal line comprising a first electrical port and a second electrical port;

a first partial filter;

a second partial filter electrically connected in series with the first partial filter, the first partial filter and the second partial filter being between the first and the second electrical ports;

wherein:

the first partial filter comprises a first serial transducer and a second serial transducer in series branches of the signal line, the first serial transducer and the second serial transducer being in an acoustic path and acoustically coupled with one another, and

the second partial filter comprises a first coupler transducer and an end-positioned transducer that are in a double mode surface acoustic wave (DMS) path, the end-positioned transducer being positioned at an end of the signal line; and

the second electrical port is connected to an additional acoustic path comprising a first transducer and a second transducer that are acoustically coupled with one another, the first transducer and the second transducer being bounded by reflectors, a first signal-conducting terminal of the second electrical port being electrically connected to the first transducer, and a second signal-conducting connection of the second electrical port being electrically connected to the second transducer.